

(c) Remarks

This application has been reviewed in light of the Office Action dated December 4, 2008. Claims 6-8, 12, 13, 18-20, 24, and 25 are presented for examination, with claims 6 and 18 being the independent claims. Claims 1-5, 9-11, 14-17, and 21-23 have been cancelled, without prejudice or disclaimer of subject matter. Claim 6 has been amended to define still more clearly what Applicants regard as their invention. Claim 18 has been amended solely as to form. Claims 24 and 25 have been added to provide Applicants with a more complete scope of protection. Favorable reconsideration is requested. The canceled claims will not be further addressed herein.

Initially, Applicants note with appreciation the opportunity to discuss the election of the combination as claimed in the current claims with the Examiner in a telephonic interview on March 16, 2009. The Examiner indicated that she would consider the claims directed a process for manufacturing an ink jet head comprising, among others, patterning a first layer and a second layer as recited in the present claims, so long as the other claims which require only the patterning of one layer are cancelled. The Examiner also indicated that she would consider the present claims because they are directed to one invention. It is understood that the PTO in general, and the Examiner, in particular, has the power to permit Applicants to elect a combination wherein the subcombination is essential to the combination.

Claim 16 was rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,314,945 ("Nickle"). Claims 1-5 were rejected under 35 U.S.C. §102(b) as being anticipated by, or in the alternative, under 35 U.S.C. §103(a) as being obvious over U.S. Patent No. 5,919,601 ("Nguyen"). Claim 16 was rejected under 35 U.S.C. §103(a) as being obvious

over U.S. Patent No. 5,716,740 ("Shiba"). Claims 1-5 were rejected under 35 U.S.C. § 103(a) as being obvious over U.S. Patent Application Publication No. 2004/0081914 ("Imai") in view of U.S. Patent No. 6,074,802 ("Murata"). Claims 6-13 were rejected under 35 U.S.C. § 103(a) as being obvious over European Patent Publication No. EP 1380423 ("Kubota") in view of Imai and further in view of Murata. Claim 17 was rejected under 35 U.S.C. § 103(a) as being obvious over Kubota in view of Shiba and further in view of Murata.

The rejections to claims 1-5, 9-11, 16, and 17 have been rendered moot for the cancellation of the claims.

It is a feature of the present claimed invention that a polyacrylate resin of general formula (1) is crosslinked with a condensable crosslinker. An intermolecular crosslinking resin forms between the polyacrylate resin and the crosslinker. The crosslinker may preferably be a melamine compound, such as that of general formula (2). The polyacrylate-melamine cross-linking reaction which occurs upon heating causes an increase in molecular weight and enhances solvent resistance. The main-chain is then disintegrated via irradiation of the crosslinked film through a mask to conduct patterning. The disintegrated main chain forms a low molecular weight compound which rapidly dissolves to permit removal. This permits an ink jet head to be formed expediently. *See* Examples 1-8.

According to the present invention, the solvent resistance of the resin in the ink flow path pattern is significantly improved. In addition, by using the resin as defined in general formulae (1) and (2), the second photosensitive layer also exhibits a light shielding effect.

None of the cited references teaches or suggests a process for manufacturing an ink jet head comprising, among others, patterning a first layer and a second layer wherein the

second layer comprises a compound with a general formula (1) and a compound with a general formula (2), as recited in claim 6.

Claim 18 recites features similar to those discussed above with respect to claim 6 and therefore are also believed to be patentable over the cited references for the reasons discussed above.

The other claims are each either directly or indirectly dependent from the independent claims discussed above and are therefore believed patentable for the same reasons.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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